

What is claimed is:

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1. A refinish basecoat composition comprising at least one pigment and an hydroxyl-functional acrylic polymer, wherein the acrylic polymer has a number average molecular weight of at least about 6000 and is polymerized using at least about 45% by weight of a cycloaliphatic monomer, based on the total weight of monomers polymerized.
2. A refinish basecoat composition according to claim 1, wherein the hydroxyl-functional acrylic polymer is at least about 50% by weight, based on nonvolatile binder material.
3. A refinish basecoat composition according to claim 1, wherein the hydroxyl-functional acrylic polymer is at least about 60% by weight, based on nonvolatile binder material.
4. A refinish basecoat composition according to claim 1, wherein the pigment is dispersed in the hydroxyl-functional acrylic polymer.
5. A refinish basecoat composition according to claim 1, wherein the refinish basecoat is free of materials reactive with the acrylic polymer.
6. A refinish basecoat composition according to claim 1, further comprising a polyester.

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7. A refinish basecoat composition according to claim 1, comprising at least one flake pigment.

8. A refinish basecoat composition according to claim 1, wherein the acrylic polymer has a weight average molecular weight of at least about 17,000.

9. A refinish basecoat composition according to claim 1, wherein the cycloaliphatic monomer comprises a member selected from the group consisting of cyclohexyl acrylate, cyclohexyl methacrylate, isobornyl acrylate, isobornyl methacrylate, and combinations thereof.

10. A refinish basecoat composition according to claim 1, wherein the cycloaliphatic monomer is at least about 60% by weight, based on the total weight of monomers polymerized.

11. A refinish basecoat composition according to claim 1, wherein the cycloaliphatic monomer is up to about 85% by weight, based on the total weight of monomers polymerized.

12. A refinish basecoat composition according to claim 1, wherein the acrylic polymer has an hydroxyl number of from about 45 mg KOH/g polymer to about 75 mg KOH/g polymer.

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13. A refinish basecoat composition according to claim 1, wherein the acrylic polymer is polymerized from monomers comprising from about 1% to about 20% by weight of a combination of styrene, n-butyl methacrylate, and n-butyl acrylate, based on the total weight of monomers polymerized, and from about 0.25% and up to about 20% by weight of at least one acrylic or methacrylic ester having amine functionality, based on the total weight of monomers polymerized.

14. A refinish basecoat composition according to claim 1, wherein an about 30% by weight solution of the acrylic polymer in a one-to-one by weight combination of n-butyl acetate and methyl isobutyl ketone has a viscosity less than or equal to about 1.5 Stokes at 25°C.

15. A refinish basecoat composition according to claim 4, wherein the pigment comprises a carbon black pigment.

16. A refinish basecoat composition comprising at least one pigment and an hydroxyl-functional acrylic polymer, wherein the acrylic polymer has a number average molecular weight of at least about 8000 and is polymerized using from about 60% to about 80% by weight of a cycloaliphatic monomer, based on the total weight of monomers polymerized.

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17. A refinish basecoat composition according to claim 16, wherein a an about 30% by weight solution of the acrylic polymer in a one-to-one by weight combination of n-butyl acetate and methyl isobutyl ketone has a viscosity less than or equal to about 0.3 Stokes at 25°C.

18. A refinish basecoat intermix system, comprising

(a) a plurality of color components each independently comprising at least one pigment dispersed by a polymeric material, and

(b) a pigment-free component containing an hydroxyl-functional acrylic polymer that has a number average molecular weight of at least about 6000 and is polymerized using at least about 45% by weight of a cycloaliphatic monomer, based on the total weight of monomers polymerized the hydroxyl-functional acrylic polymer,

wherein the color components are related such that a refinish basecoat composition of any desired color can be produced by combining the intermix system components.

19. A refinish basecoat intermix system according to claim 18, wherein the intermix system comprises at least about 30 color components.

20. A refinish basecoat intermix system according to claim 18, further comprising a component containing a crosslinker reactive with the hydroxyl-functional acrylic polymer.

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21. A refinish basecoat intermix system according to claim 18, wherein at least one color component comprises a polymeric material comprising the hydroxyl functional acrylic polymer.

22. A refinish basecoat intermix system according to claim 18, comprising a color component comprising a carbon black pigment dispersed by at least the hydroxyl functional acrylic polymer.

23. A refinish basecoat intermix system according to claim 22, wherein the hydroxyl functional acrylic polymer dispersing the carbon black pigment has amine functionality.

24. A method of refinishing a substrate, comprising steps of:  
(a) applying to a desired area of the substrate a layer of a refinish basecoat composition comprising at least one pigment and an hydroxyl-functional acrylic polymer, wherein the acrylic polymer has a number average molecular weight of at least about 6000 and is polymerized using at least about 45% by weight of a cycloaliphatic monomer, based on the total weight of monomers polymerized;

(b) allowing the applied layer of basecoat composition to dry for up to about twenty minutes; and

30. A method according to claim 24, wherein the refinish basecoat composition comprises a sufficient amount of the hydroxyl-functional acrylic

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polymer so that the refinish basecoat composition is dry to handle by up to 20 minutes after application.

31. A method according to claim 24, wherein the refinish basecoat composition comprises a sufficient amount of the hydroxyl-functional acrylic polymer so that the refinish basecoat composition is dry to handle by 10 minutes after application.

32. A method according to claim 24, wherein the refinish basecoat composition comprises a sufficient amount of the hydroxyl-functional acrylic polymer so that the refinish basecoat composition is dry to handle by 5 minutes after application.

33. An hydroxyl-functional acrylic polymer, wherein the acrylic polymer has a number average molecular weight of at least about 6000 and is polymerized using at least about 45% by weight of a cycloaliphatic monomer, based on the total weight of monomers polymerized.

34. A refinished substrate prepared according to the method of claim 24.

35. A refinish basecoat composition according to claim 1, further including a UV-curable component